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EXAMINER

KLIMACH, PAULA W

ART UNIT PAPER NUMBER

2135

DATE MAILED: 05/20/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/504,005

Applicant(s)

BOUTROS ET AL.

Examiner

Paula W Klimach

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-17, 19-23, 25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-17, 19-23, 25 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

This office action is in response to amendment filed on 2/26/04 (Paper No. 6). Original application contained Claims 1-26. Applicant cancelled Claims 12, 18, and 24, and amended Claims 1-4, 6, 10, 15, and 21. The amendment filed on 2/26/04 have been entered and made of record. Therefore, presently pending claims are 1-11, 13-17, 19-23, and 25-26.

***Response to Arguments***

Applicant's arguments filed 2/26/04 have been fully considered but they are not persuasive because of following reasons.

Regarding claim 1 applicant argued that applicant does not see anything that teaches an inspection module that provides inspection of packets for a firewall core. The examiner would like to clarify that the rules as shown in Fig. 2 perform the action of the inspection module of providing inspection of packets which is accomplished when the rule instructions performing a rule action (column 4 line 41) as shown in column 4 lines 33-41 in the reference Dutta. The new modules (rules) may be downloaded from the library (column 5 lines 28-45) and are therefore loaded while the system is operating.

Applicants clearly have failed to explicitly identify specific claim limitations, which would define a patentable distinction over prior arts.

Regarding claims 6, 10, 15, and 21, the examiner draws attention to the new grounds of rejection as shown below.

The examiner is not trying to teach the invention but is merely trying to interpret the claim language in its broadest and reasonable meaning. The examiner will not interpret to read

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narrowly the claim language to read exactly from the specification, but will interpret the claim language in the broadest reasonable interpretation in view of the specification. Therefore, the examiner asserts that the prior art does teach or suggest the subject matter broadly recited in independent Claims 1, 6, 10, 15, and 21. Dependent Claims 2-5, 7-9, 11, 13-14, 16-17, 19-20, 22-23, and 25-26 are also rejected at least by virtue of their dependency on independent claims and by other reason set forth in this office action (Paper No. 7). Accordingly, rejections for claims 1-11, 13-17, 19-23, and 25-26 are respectfully maintained.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-5** are rejected under 35 U.S.C. 102(e) as being anticipated by Dutta (U.S. Patent 6,574,666 B1).

*In reference to claim 1*, Dutta suggests a firewall device having a plurality of communication interfaces, a firewall system comprising: a) a firewall core connected to each said communication interface (column 4 lines 63-66); and b) at least one inspection module

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coupled for communication to said firewall core, said inspection module configured to provide protocol inspection of data packets to said firewall core (column 5 lines 1-12), said firewall core configured to receive data packets from said interfaces and communicate said packets to said inspection module for inspection, said inspection module is further configured to be installed during the operation of the firewall system (column 3 lines 14-30). The rules as shown in Fig. 2 perform the action of the inspection module of providing inspection of packets which is accomplished when the rule instructions performing a rule action (column 4 line 41) as shown in column 4 lines 33-41 in the reference Dutta. The new modules (rules) may be downloaded from the library (column 5 lines 28-45) and are therefore loaded while the system is operating.

*In reference to claim 2*, wherein said inspection module is installed into a memory space monitored by said firewall core (Dutta column 4 lines 41-62).

*In reference to claim 3*, wherein said inspection module further comprises callback functions, said functions communicated to said firewall core and providing communication between said firewall core and said inspection module. The use of callback functions is an inherent method of defining functions for efficient communication between two systems. The systems in this case are the firewall processor and the fetch processor (Dutta column 4 lines 41-50).

*In reference to claim 4*, wherein said inspection module is further configured to indicate to said firewall core for which data packets said inspection module is configured to provide inspection (Dutta column 4 line 66 to column 5 line 12).

*In reference to claim 5*, wherein said data packets intercepted by said firewall core further includes session information comprising address and port data, said firewall core further

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configured to map said session information to corresponding inspection modules (Dutta column 2 line 60 to column 3 line 5 in combination with column 4 lines 32-50). Packet Filter Router rules are based on address and port information, therefore, the address and port information obviously must be contained within the packets.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 6-9, 10-11, 13-17, 19-23, and 25-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dutta in view of Kullick et al (5,732,275).

*In reference to claim 6*, Dutta suggests a firewall device having a plurality of communication interfaces, a firewall core configured to be coupled to at least one inspection module, said firewall core comprising: a) a communication unit operatively coupled to the communication interfaces (column 4 lines 63-66); and b) a set of callback functions, retrieved from said inspection module, each said function providing communication between said firewall core and said inspection module. The use of callback functions is an inherent method of efficient communication between two different systems; the systems in this case are the firewall processor and the fetch processor (column 4 lines 41-50).

Dutta does not expressly disclose a system wherein the firewall core is configured to monitor a memory to determine when a new inspection module is loaded into said memory.

However Kullick discloses a method of automatically managing, monitoring and updating a software program. The application management program checks whether there is a new version of the program is currently stored on server memory in a section designated a drop box (column 5 lines 50-67).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the management program of Kullick to find new version of the rules in the firewall of Dutta. One of ordinary skill in the art would have been motivated to do this because this would enable the firewall to keep the rules constantly updated.

*In reference to claim 10*, Dutta suggests a firewall device having a plurality of communication interfaces and a firewall core coupled to the communication interfaces, an inspection module to configured to couple with the firewall core, said inspection module comprising: a) an inspection unit configured to inspect and authorize data packets (column 5 lines 1-12); and b) a function table having a set of callback functions each said function providing communication between said firewall core and said inspection module. A function table is an obvious method for an operating system to implement call back functions for communication between two systems, which in this case would be the firewall instruction processor and the fetching instruction processor (column 4 lines 42-46).

Dutta does not expressly disclose a system wherein the firewall core is configured to monitor a memory to determine when a new inspection module is loaded into said memory.

However Kullick discloses a method of automatically managing, monitoring and updating a software program. The application management program checks whether there is a

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new version of the program is currently stored on server memory in a section designated a drop box (column 5 lines 50-67).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the management program of Kullick to find new version of the rules in the firewall of Dutta. One of ordinary skill in the art would have been motivated to do this because this would enable the firewall to keep the rules constantly updated.

*In reference to claims 15 and 21*, Dutta suggests a firewall device having a firewall system including a firewall core, a method for adding protocol knowledge to the firewall system during runtime comprising: a) loading an inspection module comprising new protocol inspection knowledge and a function table having a set of callback functions (column 3 lines 14-25); to b) notifying the firewall core of' said inspection module (column 3 lines 26-33); and c) communicating said set of callback functions to said firewall core. The use of callback functions is an inherent method of efficient communication between two different systems, in this case the systems are the firewall processor and the fetch processor (column 4 lines 41-50).

Dutta does not expressly disclose a system wherein the firewall core is configured to monitor a memory to determine when a new inspection module is loaded into said memory.

However Kullick discloses a method of automatically managing, monitoring and updating a software program. The application management program checks whether there is a new version of the program is currently stored on server memory in a section designated a drop box (column 5 lines 50-67).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the management program of Kullick to find new version of the rules in the firewall



of Dutta. One of ordinary skill in the art would have been motivated to do this because this would enable the firewall to keep the rules constantly updated.

*In reference to claim 7*, wherein said communication unit is further configured to intercept network data communicated via said network interfaces (Dutta column 3 lines 46-65).

*In reference to claim 8*, further comprising a session mapping unit, said data packets intercepted by said firewall core further including session information comprising address and port data, said firewall core further configured to map said session information to corresponding inspection modules into a session mapping and store said session mapping into said session mapping unit (Dutta column 2 line 60 to column 3 line 5 in combination with column 4 lines 32-50). Packet Filter Router rules are based on address and port information, therefore, the address and port information obviously must be contained within the packets.

*In reference to claim 9*, wherein said communication unit is further configured to communicate packets between said communication interfaces and said inspection module for inspection (Dutta column 4 line 63 to column 5 line 12).

*In reference to claim 11*, wherein said inspection unit is further configured to be installed during the operation of the firewall core. The rules retrieved by the filter processor to update the filter processor are retrieved during the operation of the filter processor.

*In reference to claim 13*, the firewall system of claim 1, wherein said inspection module is further configured to indicate to said firewall core for which data packets said inspection module is configured to provide inspection (Dutta column 5 lines 1-12).

*In reference to claim 14*, where in said inspection unit is further configured to receive and inspect packets communicated from the firewall core (Dutta column 5 lines 5-12).

*In reference to claim 16 and 22*, further comprising enabling said inspection module, prior to communicating said set of callback function to said firewall core. The new information is used to filter packets therefore the new rules, provided by the filter processor, are in an enabled state similar to the state of the inspection module.

*In reference to claim 17 and 23*, further comprising inspecting of packets by said inspection module, said packets communicated from the firewall core to said inspection module (Dutta column 5 lines 1-12).

*In reference to claim 19 and 25*, wherein said notifying the firewall core comprises transmitting a signal to the firewall core to indicate the installation of said inspection module (Dutta column 3 lines 25-32).

*In reference to claim 20 and 26*, further comprising indicating by said inspection module for which data packets said inspection module provides inspection (Dutta column 5 lines 1-12).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paula W Klimach whose telephone number is (703) 305-8421.

The examiner can normally be reached on Mon to Thr 9:30 a.m to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (703) 305-4393. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PWK  
Monday, May 10, 2004

  
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